## PATENT COOPERATION TREATY

### **NOTIFICATION OF RECEIPT OF RECORD COPY**

(PCT Rule 24.2(a))

### From the INTERNATIONAL BUREAU

RECEIVED

WARD, Michael, R. Limbach & Limbach L.L.P. JUL 1 7 2000

2001 Ferry Building

LIMBACH & LIMBACH L. P.

San Francisco, CA 94111-4262

**ETATS-UNIS D'AMERIQUE** 

Date of mailing (day/month/year) 03 July 2000 (03.07.00)	IMPORTANT NOTIFICATION	
Applicant's or agent's file reference REDC-1510PCT	International application No. 20ms take 1/17/01 PCT/US00/13651 30ms date 11/17/01	کمت

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

CONJUCHEM, INC. (for all designated States except US)

BRIDON, Dominique, P. et al (for US)

International filing date

17 May 2000 (17.05.00)

Priority date(s) claimed

17 May 1999 (17.05.99) 🕊

Date of receipt of the record copy

10 September 1999 (10.09.99)

by the International Bureau

20 June 2000 (20.06.00)

List of designated Offices

AP:GH,GM,KE,LS,MW,SD,SL,SZ,TZ,UG,ZW

EA:AM,AZ,BY,KG,KZ,MD,RU,TJ,TM

EP:AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE

OA:BF,BJ,CF,CG,CI,CM,GA,GN,GW,ML,MR,NE,SN,TD,TG

National: AE,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EE,ES,FI,GB, GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KP,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK, MN,MW,MX,NO,NZ,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,US,UZ,VN,YU,ZA,

ZW

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer:

R. Raissi

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

003387648

Form PCT/IB/301 (July 1998)

### Continuation of Form PCT/IB/301

### NOTIFICATION OF RECEIPT OF RECORD COPY

Date of mailing (day/month/year) 03 July 2000 (03.07.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference REDC-1510PCT	International application No. PCT/US00/13651

### **ATTENTION**

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

X time limits for entry into the national phase

X confirmation of precautionary designations

X requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

### **ANNEX TO FORM PCT/IB/301**



### INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is **20 MONTHS** from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, **30 MONTHS** from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. It is the applicant's responsibility to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

### **CONFIRMATION OF PRECAUTIONARY DESIGNATIONS**

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

### REQUIREMENTS REGARDING PRIORITY DOCUMENTS

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.



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## **PCT**

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## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER see Notification (Form PCT/ISA/2	of Transmittal of International Search Report 220) as well as, where applicable, item 5 below.
REDC-1510PCT International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
.,		
PCT/US 00/13651	17/05/2000	17/05/1999
Applicant	÷	
CONJUCHEM, INC.		
This International Search Report has be according to Article 18. A copy is being t	en prepared by this International Searching Aut ransmitted to the International Bureau.	thority and is transmitted to the appRECEIVEI
	s of a total of3 sheets.  y a copy of each prior art document cited in this	
Basis of the report		TECH CENTER 1600/290
a With regard to the language, the	e international search was carried out on the ba nless otherwise indicated under this item.	sis of the international application in the
the international search Authority (Rule 23.1(b)).	was carried out on the basis of a translation of	the international application furnished to this
was carried out on the basis of t	he sequence listing :	nternational application, the international search
1 =	ional application in written form. ternational application in computer readable for	m
I 😕 .		
· 🗀 · · ·	to this Authority in written form. to this Authority in computer readble form.	TECHR
the statement that the si	ubsequently furnished written sequence listing as filed has been furnished.	does not go beyond the disclosure in the
		is identical to the written sequence listing has been
2. Certain claims were fo	und unsearchable (See Box I).	EIVED 1 2000 CENTER 1700
3. Unity of invention is la		D R 17
		. 00
4. With regard to the title,		
	submitted by the applicant.	
the text has been establ	lished by this Authority to read as follows:	
5. With regard to the abstract,		
l	submitted by the applicant.	
the text has been estable	lished, according to Rule 38.2(b), by this Autho he date of mailing of this international search re	rity as it appears in Box III. The applicant may, eport, submit comments to this Authority.
6. The figure of the <b>drawings</b> to be pu	blished with the abstract is Figure No.	
as suggested by the app	plicant.	None of the figures.
because the applicant fa	ailed to suggest a figure.	
because this figure bette	er characterizes the invention.	

## INTEMATIONAL SEARCH HEPORT

hational Application No PCT/US 00/13651

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C07K14/115 C07K14/135 A61K38/16 C07K14/16 C07K14/155 A61P31/12

According to International Patent Classification (IPC) or to both national classification and IPC

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C07K A61K IPC 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

TECH CENTER 1600/2900

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, MEDLINE, BIOSIS

Category °	INTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 95 10302 A (REDCELL INC) 20 April 1995 (1995-04-20) claims; example 3	1-3,19, 20
A	EP 0 602 290 A (POULETTY PHILIPPE; POULETTY CHRISTINE (US)) 22 June 1994 (1994-06-22) column 5, line 32 - line 53; claims column 6, line 44 - line 55	1-3,19, 20
A	US 5 614 487 A (HANCOCK WILLIAM S ET AL) 25 March 1997 (1997-03-25) column 4, line 39 -column 5, line 19 -/	1,19

<ul> <li>later document published after the international filing date or priority date and not in conflict with the application but</li> </ul>
cited to understand the principle or theory underlying the invention  X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  X* document of particular relevance; the claimed invention
cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  &* document member of the same patent family
Date of mailing of the international search report $19/10/2000$
Authorized officer Fuhr, C

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## INTERMATIONAL SEARCH REPORT

ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
WO 99 48536 A (CONJUCHEM INC; HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); EZRI) 30 September 1999 (1999-09-30) page 8, line 11 - line 15 page 18, line 3 -page 19, line 15; claims; examples	1-3,19, 20
WO 99 24075 A (CONJUCHEM INC ;HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); HUAN) 20 May 1999 (1999-05-20) page 7, line 8 - line 14; claims; examples	1-3,19, 20
WO 99 24074 A (CONJUCHEM INC ;HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); EZRI) 20 May 1999 (1999-05-20) claims; examples	1-3,19, 20
·	
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	WO 99 48536 A (CONJUCHEM INC ;HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); EZRI) 30 September 1999 (1999-09-30) page 8, line 11 - line 15 page 18, line 3 -page 19, line 15; claims; examples  WO 99 24075 A (CONJUCHEM INC ;HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); HUAN) 20 May 1999 (1999-05-20) page 7, line 8 - line 14; claims; examples  WO 99 24074 A (CONJUCHEM INC ;HOLMES DARREN L (CA); BRIDON DOMINIQUE P (CA); EZRI) 20 May 1999 (1999-05-20) claims; examples

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# INTEGATIONAL SEARCH REPORT

national Application No PCT/US 00/13651

Patent document cited in search repor	<u> </u>	Publication date	Patent family member(s)	Publication date
WO 9510302	Α	20-04-1995	US 5612034 A AU 693813 B AU 7955894 A CA 2172630 A EP 0793506 A JP 9503511 T US 6103233 A US 5843440 A	18-03-1997 09-07-1998 04-05-1995 20-04-1995 10-09-1997 08-04-1997 15-08-2000 01-12-1998
EP 0602290	Α	22-06-1994	NONE	
US 5614487	Α	25-03-1997	NONE	
WO 9948536	Α	30-09-1999	AU 3452799 A EP 1042003 A	18-10-1999 11-10-2000
WO 9924075	A	20-05-1999	AU 1312799 A AU 1385699 A AU 1519699 A AU 1519799 A EP 1007561 A EP 1028971 A WO 9924462 A WO 9924074 A WO 9924076 A	31-05-1999 31-05-1999 31-05-1999 31-05-1999 14-06-2000 23-08-2000 20-05-1999 20-05-1999
WO 9924074	A	20-05-1999	AU 1312799 A AU 1385699 A AU 1519699 A AU 1519799 A EP 1007561 A EP 1028971 A WO 9924462 A WO 9924075 A WO 9924076 A	31-05-1999 31-05-1999 31-05-1999 31-05-1999 14-06-2000 23-08-2000 20-05-1999 20-05-1999

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PATENT COOPERATION TREATY

**PCT** 

REC'D 0 3 AUG 2001

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's	or age	ent's file reference	Г		ee Notification of Transmittal of International
N.81325			FOR FURTHER AC		reliminary Examination Report (Form PCT/IPEA/416)
Internation	al appl	ication No.	International filing date (d	ay/month/yea	r) Priority date (day/month/year)
PCT/US	00/13	651	17/05/2000		17/05/1999
Internation C07K14/		nt Classification (IPC) or na	tional classification and IPC		
Applicant					
CONJUC	CHEN	I, INC. et al.			
and i	s tran:	ational preliminary exami smitted to the applicant a PRT consists of a total of	ccording to Article 36.		this International Preliminary Examining Authority
t (	een a see R	eport is also accompanied imended and are the bas ule 70.16 and Section 60 exes consist of a total of	sis for this report and/or s or of the Administrative	sheets conta	escription, claims and/or drawings which have aining rectifications made before this Authority under the PCT).
3. This	report	contains indications rela	ting to the following item	ns:	·
11		Priority			
111			·	velty, inventi	ive step and industrial applicability
IV V	∐ ⊠				elty, inventive step or industrial applicability;
VI		Certain documents cite	ed		
VII		Certain defects in the in	nternational application		
VIII		Certain observations of	n the international applic	ation	
Date of su	bmissio	on of the demand		Date of comp	pletion of this report
15/12/20	000			31.07.2001	
	exam Euro D-80 Tel.	g address of the international ining authority: opean Patent Office 0298 Munich +49 89 2399 - 0 Tx: 523656		Authorized o	
	Fax	+49 89 2399 - 4465		Tolophono N	Jo +49 89 2399 8933

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/13651

i. Dasis Oi ili Tep	asis of the repert	t
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1.	the and	receiving Office in I	response to an invitat	onal application (Replacement sheets which have been furnished to ion under Article 14 are referred to in this report as "originally filed" y do not contain amendments (Rules 70.16 and 70.17)):
	1-1	65	as originally filed	
	Cla	ims, No.:		
	1-3	4	with telefax of	19/06/2001
	Sec	uence listing part	of the description,	pages:
	1-37	7, as originally filed		
2.			<b>—</b> ·	ts marked above were available or furnished to this Authority in the on was filed, unless otherwise indicated under this item.
	The	se elements were a	available or furnished	to this Authority in the following language: , which is:
		the language of a t	translation furnished t	or the purposes of the international search (under Rule 23.1(b)).
		the language of pu	blication of the intern	ational application (under Rule 48.3(b)).
		the language of a t 55.2 and/or 55.3).	translation furnished t	or the purposes of international preliminary examination (under Rule
3.				o acid sequence disclosed in the international application, the arried out on the basis of the sequence listing:
	×	contained in the int	ternational application	n in written form.
	$\boxtimes$	filed together with t	the international appl	cation in computer readable form.
		furnished subseque	ently to this Authority	in written form.
		furnished subsequ	ently to this Authority	in computer readable form.
			t the subsequently ful oplication as filed has	nished written sequence listing does not go beyond the disclosure in been furnished.
		The statement that listing has been fur		rded in computer readable form is identical to the written sequence
4.	The	amendments have	resulted in the cance	ellation of:
		the description,	pages:	
		the claims,	Nos.:	
		the drawings,	sheets:	

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/13651

5. 🗆	This report has been established as if (some of) the amendments had not been made, since they have bee considered to go beyond the disclosure as filed (Rule 70.2(c)):
	(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

- 6. Additional observations, if necessary:
- V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- 1. Statement

Novelty (N)

Yes: Claims 1-34
No: Claims

Inventive step (IS)

Yes: Claims 1-34
No: Claims

Industrial applicability (IA)

Yes: Claims 1-34
No: Claims

2. Citations and explanations see separate sheet

## INTERNATIONAL PRELIMINARY

International application No. PCT/US00/13651

## **EXAMINATION REPORT - SEPARATE SHEET**

## R It m V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- The amendments filed with the telefax dated 19/06/2001 appear to meet the 1. requirements of Article 34(2)(b) PCT.
- None of the cited prior art documents, either alone or in combination, clearly and 2. unambigously discloses "a modified anti-viral peptide comprising a peptide that exhibits anti-viral activity and a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds". The subject-matter of claims 1-34, thus, meets the requirements of Article 33(2) and (3) PCT.

## WHAT IS CLAIMED IS:

- 1. A modified anti-viral peptide comprising:
- a peptide that exhibits anti-viral activity, and
- a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds.
- 2. The modified peptide of claim 1 wherein the blood component is serum albumin.
- 3. The modified peptide of claim 1 wherein said peptide is DP178 or DP107 or analogs thereof.
- 4. The modified peptide of claim 1 wherein said peptide exhibits antiviral activity against human immunodeficiency virus (HIV).
- 5. The modified peptide of claim 4 wherein said peptide is selected from the group consisting of SEQ ID NO:1 to SEQ ID NO:9.
- 6. The modified peptide of claim 4 wherein said peptide is DP 178 or DP 107.
- 7. The modified peptide of claim 1 wherein said peptide exhibits antiviral activity against human respiratory syncytial virus (RSV).
- 8. The modified peptide of claim 7 wherein said peptide is selected from the group consisting of SEQ ID NO:10 to SEQ ID NO:30.
- 9. The modified peptide of claim 7 wherein said peptide is selected from the group consisting of SEQ ID NO:14 to SEQ ID NO:17 and SEQ ID NO:29.
- 10. The modified peptide of claim 1 wherein said peptide exhibits antiviral activity against human parainfluenza virus (HPIV).

- 11. The modified peptide of claim 10 wherein said peptide is selected from the group consisting of SEQ ID NO:31 to SEQ ID NO:62.
- 12. The modified peptide of claim 10 wherein said peptide is selected from the group consisting of SEQ ID NO: 35, SEQ ID NO:38 to SEQ ID NO:42, SEQ ID NO:52 and SEQ ID NO:58.
- 13. The modified peptide of claim 1 wherein said peptide exhibits antiviral activity against measles virus (MeV).
- 14. The modified peptide of claim 13 wherein said peptide is selected from the group consisting of SEQ ID NO:74 to SEQ ID NO:86.
- 15. The modified peptide of claim 13 wherein said peptide is selected from the group consisting of SEQ ID NO:77, SEQ ID NO:79, SEQ ID NO:81 and SEQ ID NO:84.
- 16. The modified peptide of claim 1 wherein said peptide exhibits antiviral activity against simian immunodeficiency virus (SIV).
- 17. The modified peptide of claim 16 wherein said peptide is selected from the group consisting of SEQ ID NO:63 to SEQ ID NO:73.
- 18. A composition for use in the prevention and/or treatment of acquired immune deficiency syndrome (AIDS) comprising a peptide that exhibits anti-viral activity against human immunodeficiency virus (HIV), modified with a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds.
- 19. The composition of claim 18 wherein the blood component is serum albumin.
- 20. The composition of claim 19 wherein said peptide is DP178 or DP107 or analogs thereof.

- 21. A composition for use in the prevention and/or treatment of human respiratory syncytial virus (RSV) infection comprising a peptide that exhibits anti-viral activity against RSV, modified with a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds.
- 22. The composition of claim 21 wherein the blood component is serum albumin.
- 23. The composition of claim 22 wherein said peptide is selected from the group consisting of SEQ ID NO:14 to SEQ ID NO:17 and SEQ ID NO:29.
- 24. A composition for use in the prevention and/or treatment of human parainfluenza virus (HPIV) infection comprising a peptide that exhibits anti-viral activity against human parainfluenza (HPIV), modified with a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds.
- 25. The composition of claim 24 wherein the blood component is serum albumin.
- 26. The composition of claim 25 wherein said peptide is selected from the group consisting of SEQ ID NO: 35, SEQ ID NO:38 to SEQ ID NO:42, SEQ ID NO:52 and SEQ ID NO:58.
- 27. A composition for use in the prevention and/or treatment of measles virus (MeV) infection comprising a peptide that exhibits anti-viral activity against measles virus (MeV), modified with a maleimide group which is reactive with a thiol group on blood components to form stable covalent bonds.
- 28. The composition of claim 27 wherein the blood component is serum albumin.

- 29. The composition of claim 28 wherein said peptide is selected from the group consisting of SEQ ID NO:77, SEQ ID NO:79, SEQ ID NO:81 and SEQ ID NO:84.
- 30. The modified peptide of claim 1 wherein the maleimide group is coupled to the peptide via a linking group.
- 31. The composition of claim 18 wherein the maleimide group is coupled to the peptide via a linking group.
- 32. The composition of claim 21 wherein the maleimide group is coupled to the peptide via a linking group.
- 33. The composition of claim 24 wherein the maleimide group is coupled to the peptide via a linking group.
- 34. The composition of claim 27 wherein the maleimide group is coupled to the peptide via a linking group.

## PATENT COOPERATION TREATY

## PCT

## NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

To:

RECEIVED

WARD, Michael, R. Limbach & Limbach L.L.P. JUL 1 9 2000

2001 Ferry Building LIMBACH & LIMBACH L.L.P.

San Francisco, CA 94111-4262

ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 12 July 2000 (12.07.00)	
Applicant's or agent's file reference REDC-1510PCT	IMPORTANT NOTIFICATION
International application No. PCT/US00/13651	International filing date (day/month/year) 17 May 2000 (17.05.00)
nternational publication date (day/month/year)  Not yet published	Priority date (day/month/year) 17 May 1999 (17.05.99)

CONJUCHEM, INC. et al

- 1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR". In the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- 2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- 3. An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- 4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date Priority application No.

Country or regional Office of priority document

10 Sept 1999 (10.09.99)

60/153,406

US

Date of receipt of priority document

28 June 2000 (28.06.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Max Germeil

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35

003404551

## PATENT COOPERATION TREATY

## PCT

## NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

## From the INTERNATIONAL BUREAU

FTATS-UNIS D'AMERIQUE

## RECEIVED

JUL 3 1 2000

WARD, Michael, R. LIMBACH & LIMBACH L.L.F. WARD, Michael, R. 2001 Ferry Building San Francisco, CA 94111-4262

Date of mailing (day/month/year) 24 July 2000 (24.07.00)	
Applicant's or agent's file reference REDC-1510PCT	IMPORTANT NOTIFICATION
International application No. PCT/US00/13651	International filing date (day/month/year) 17 May 2000 (17.05.00)
International publication date (day/month/year)  Not yet published	Priority date (day/month/year) 17 May 1999 (17.05.99)

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
17 May 1999 (17.05.99)	60/134,406	us	28 June 2000 (28.06.00)
10 Sept 1999 (10.09.99)	60/153,406	us	28 June 2000 (28.06.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Tessadel PAMPLIEGA Toff

Telephone No. (41-22) 338.83.38

Facsimile No. (41-22) 740.14.35



## **REQUEST**

EXPRESS I	MAIL:	LABEL	NΟ.	FT:38734	17602UE
Attorney	Dock	e V	REI	C-1510	USA

For receiving Office use only
International Application No.
International Filing Date
Name of receiving Office and "PCT International Application"
Applicant's or acent's file reference

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty. Applicant's or agent's file reference REDC-1510PCT (if desired) (12 characters maximum) Box No. I TITLE OF INVENTION LONG LASTING FUSION PEPTIDE INHIBITORS OF VIRAL INFECTION Box No. II APPLICANT Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this This person is also inventor. Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) Telephone No. CONJUCHEM, INC. (514) 844-5558 225 President Kennedy Avenue West Facsimile No. Third Floor, Suite 3950 (514) 844-1119 Montreal, Quebec H2X 3Y8 Canada Teleprinter No. State (that is, country) of nationality: State (that is, country) of residence: the States indicated in the Supplemental Box This person is applicant all designated States except the United States of America all designated the United States for the purposes of: of America only Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only BRIDON, Dominique P. 243 Chemin Cote Ste-Catherine applicant and inventor Outremont, Quebec H2V 2B2 Canada inventor only (If this check-box is marked, do not fill in below.) State (that is, country) of nationality: State (that is, country) of residence: CA all designated States except the United States of America the States indicated in the Supplemental Box This person is applicant the United States all designated States for the purposes of: of America only Further applicants and/or (further) inventors are indicated on a continuation sheet. Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE The person identified below is hereby/has been appointed to act on behalf common representative agent of the applicant(s) before the competent International Authorities as: Name and address: (Family name followed by given name; for a legal entity, full official Telephone No. designation. The address must include postal code and name of country.) (415) 433-4150 WARD, Michael R. Facsimile No. LIMBACH & LIMBACH L.L.P. (415) 433-8716 2001 Ferry Building San Francisco, California 94111-4207 Teleprinter No. Unit d States of America Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

Sheet No. 2

Continuation of Box No. III FURTHER APPLICA	NTS AND/OR (FURTHER	) INVENTOR(S)
If none of the following sub-boxes is	used, this sheet is not to be i	ncluded in the request.
Name and address: (Family name followed by given name; for a legal The address must include postal code and name of country. The count Box is the applicant's State (that is, country) of residence if no State of DUFRESNE, Robert P.  115 Pilgrim Road Wellesley, Massachusetts 02181 United States of America	ntry of the address indicated in this	This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: US	State (that is, country) of US	residence:
This person is applicant all designated all designated for the purposes of:		nited States  the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a legal The address must include postal code and name of country. The count Box is the applicant's State (that is, country) of residence if no State of BOUDJELLAB, Nissab 420 Bourke, Apt. 2A Dorval, Quebec J5A 2M1 Canada	ntry of the address indicated in this	This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: CA, DZ	State (that is, country) of CA	residence:
		nited States the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a lega The address must include postal code and name of country. The count Box is the applicant's State (that is, country) of residence if no State of ROBITAILLE, Martin 108 2 ieme Boulevard Terrasse-Vaudreuil, Quebec J7V 5S1 Canada	ntry of the address indicated in this	This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality:	State (that is, country) of	residence:
This person is applicant all designated all designated for the purposes of:		Inited States the States indicated in the Supplemental Box
Name and address: (Family name followed by given name; for a legal The address must include postal code and name of country. The count Box is the applicant's State (that is, country) of residence if no State of MILNER, Peter G.  14690 Manuella Road Los Altos Hills, California 94022 United States of America	ntry of the address indicated in this	This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: UK	State (that is, country) of US	residence:
This person is applicant all designated all design the United	ated States except the U	Inited States the States indicated in the Supplemental Box
Further applicants and/or (further) inventors are indicated	on another continuation sheet.	

Shee

Box No.V	DESIGNA	TION OF	STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes: at least one must be marked):

#### Regional Patent

- AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian
- EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☑ OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

Nat	ional	Patent (if other kind of protection or treatment desired,	specij	fy on t	dotted line):
$\boxtimes$	ΑE	United Arab Emirates	$\boxtimes$	LR	Liberia
$\boxtimes$	AL	Albania	$\boxtimes$	LS	Lesotho
$\boxtimes$	$\mathbf{AM}$	Armenia	$\boxtimes$		Lithuania
$\boxtimes$	ΑT	Austria	$\boxtimes$	LU	Luxembourg
$\mathbf{X}$	ΑU	Australia	$\boxtimes$	LV	Latvia
$\mathbf{X}$	$\mathbf{AZ}$	Azerbaijan	$\boxtimes$	MA	Morocco
$\mathbf{X}$	BA	Bosnia and Herzegovina	$\boxtimes$	MD	Republic of Moldova
$\mathbf{X}$	BB	Barbados	$\boxtimes$		Madagascar
$\mathbf{X}$	BG	Bulgaria	$\boxtimes$	MK	The former Yugoslav Republic of Macedonia
$\boxtimes$	BR	Brazil			
X	BY	Belarus	$\times$	MN	Mongolia
$\mathbf{X}$	CA	Canada	$\boxtimes$	MW	Malawi
$\mathbf{X}$	CH a	nd LI Switzerland and Liechtenstein	$\boxtimes$	MX	Mexico
$\boxtimes$	CN	China	$\boxtimes$	NO	Norway
$\boxtimes$	CR	Costa Rica	$\times$	NZ	New Zealand
X	CU	Cuba	$\boxtimes$	PL	Poland
$\mathbf{X}$	CZ	Czech Republic	$\boxtimes$	PT	Portugal
$\boxtimes$	DE	Germany	$\boxtimes$	RO	Romania
$\boxtimes$	DK	Denmark	$\boxtimes$	RU	Russian Federation
$\boxtimes$	DM	Dominica	$\boxtimes$	SD	Sudan
X	EE	Estonia	$\boxtimes$	SE	Sweden
$\mathbf{X}$	ES	Spain	$\boxtimes$	SG	Singapore
$\boxtimes$	FI	Finland	$\boxtimes$	SI	Slovenia
$\mathbf{X}$	GB	United Kingdom	$\boxtimes$	SK	Slovakia
X	GD	Grenada	$\boxtimes$	SL	Sierra Leone
$\mathbf{X}$	GE	Georgia	$\boxtimes$	TJ	Tajikistan
$\mathbf{X}$	GH	Ghana	$\boxtimes$	TM	Turkmenistan
$\mathbf{X}$	GM	Gambia	$\boxtimes$		Turkey
$\boxtimes$	HR	Croatia	$\boxtimes$	TT	Trinidad and Tobago
X	HU	Hungary	$\times$		United Republic of Tanzania
$\mathbf{X}$	ID	Indonesia	$\boxtimes$	UA	Ukraine
X	IL	Israel	$\boxtimes$	UG	Uganda
$\boxtimes$	IN	India	$\mathbf{X}$	US	United States of America
$\boxtimes$	IS	Iceland			
X	JP	Japan	$\boxtimes$	UZ	Uzbekistan
X	KE	Kenya	$\mathbf{X}$	VN	Viet Nam
$\boxtimes$	KG	Kyrgyzstan	$\boxtimes$	YU	Yugoslavia
X	KP	Democratic People's Republic of Korea	$\times$	ZA	South Africa
			$\boxtimes$		Zimbabwe
X	KR	Republic of Korea	Chec	k-bo	kes reserved for designating States which have become
$\mathbf{X}$	ΚZ	Kazakhstan	party	to th	e PCT after issuance of this sheet:
X	LC	Saint Lucia			
$\boxtimes$	LK	Sri Lanka			

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time

#### Supplemental Box

If the Supplemental Box is not used, this sheet need not be included in the request.

1. If, in any of the Boxes, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No. ..." [indicate the number of the Box] and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:

- (i) if more than two persons are involved as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Box No. III and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. II" or "Continuation of Box No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI;
- if, in Box No. VI, the earlier application is an ARIPO application: in such case, write "Continuation of Box No. VI", specify (vii) the number of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed.
- 2. If, with regard to the **precautionary designation statement** contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.
- 3. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudical disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudical disclosures or exceptions to lack of novelty" and furnish that statement below.

### Continuation of Box No. IV

LIMBACH, Karl A. LIMBACH, George C. UILKEMA, John K. SMITH, Neil A. DEVITT, Veronica C. YIN, Ronald L. SEKIMURA, Gerald T. STALLMAN, Michael A. GIRARD, Philip A. POLLOCK, Michael J. EVERETT, Stephen M. EQUITZ, Alfred A. SAMMUT, Charles P. PICKERING, Mark C. COLEMAN JAMES, Patricia FROST, Kathleen A. LIMBACH, Alan A. LIMBACH, Douglas C. OH, Seong-Kun

KING, Cameron A.

HARRIEL, Kyla L.
MAEDA, Mayumi
WARD, Michael R.
SAMPSON, Roger S.
HAMILTON, Charles L.
SMITH, Andrew V.
HOOVER, Eric N.
McCARTHY, J. Thomas
ACKERMAN, Joel G.

All attorneys are members or associates of the firm LIMBACH & LIMBACH L.L.P. Address, telephone number, and facsimile number of all are indicated in Box No. IV.

Sheet	No			5	

Box No. VI PRIORITY C	Box No. VI PRIORITY CLAIM Further priority claims are indicated in the Supplemental Box.							
Filing date	Filing date Number Where earlier application is:							
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	international application: receiving Office				
item (1)	-	<del></del>						
17 May 1999 (17.05.99)	60/134,406	US ;						
item (2) 10 September 1999 (10.09.99)	60/153,406	us						
item (3)								
of the earlier application  purposes of the present if  Where the earlier application is an Al	The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s):  *Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.							
Box No. VII INTERNATIO	ONAL SEARCHING AUT	THORITY						
Choice of International Searching (if two or more International Se competent to carry out the internati Authority chosen; the two-letter cod	arching Authorities are onal search, indicate the	Request to use results of ear search has been carried out by or Date (day/month/year)	requested from the Internation					
ISA/ EP								
	T: LANGUAGE OF FILI							
This international application co the following number of sheets		al application is accompanation sheet	ied by the item(s) mark	ed below:				
request :	5 2. 🔀 separate si	gned power of attorney						
description (excluding	3. Copy of ge	neral power of attorney; re	eference number, if any:					
sequence listing part) :	165 4. statement	explaining lack of signatur	e					
claims :	4 5. D priority do	cument(s) identified in Bo	x No. VI as item(s):					
abstract :	1 6. Translation	of international application	n into (language):					
drawings :	0 7. separate in	dications concerning depo	sited microorganism or	other biological material				
sequence listing part of description :	8. Inucleotide	and/or amino acid sequen	ce listing in computer re	eadable form				
Total number of sheets:	212 9. <b>23</b> other (spec	cify): Transmittal Letter;	express Mail Certifica	ite, Acknowledgement				
Figure of the drawings which should accompany the abstract:		iguage of filing of the rnational application:	e Eng	lish				
Box No. IX SIGNATURE	OF APPLICANT OR AG	ENT						
Next to each signature, indicate obvious from reading the reques	e the name of the person s	igning and the capacity is	n which the person sign	s (if such capacity is not				
LIMBACH & LIMBACH L.L.F	) <u>.</u>			ļ				
By Wichael R. Ward Attorneys for Applicants								
Date of actual receipt of the international application:		eiving Office use only —		2. Drawings:				
Corrected date of actual rectimely received papers or drepurported international applications.	awings completing the			received:				
Date of timely receipt of the corrections under PCT Artic				not received:				
International Searching Aut (if two or more are competent)			l of search copy delayed h fee is paid.	i				
<del></del>	For Inte	mational Bureau use only						
Date of receipt of the record co by the International Bureau:	рру							